Acronyms and Abbreviations			guanine
		GST	glutathione S-transferase
A	adenine	GST-P+	glutathione S-transferase placental form positive
AA	aristolochic acid	GSTT1	glutathione S-transferase theta 1
AAN	aristolochic acid nephropathy	h	hour(s)
ACGIH	American Conference of Governmental Industrial	HAART	highly active antiretroviral therapy
	Hygienists	HAM/TSP	HTLV-1-associated myelopathy/tropical spastic
ADH	alcohol dehydrogenase		paraparesis
AIDS	acquired immunodeficiency syndrome	HBeAg	hepatitis B e antigen
ALT	alanine transaminase	HBsAg	hepatitis B surface antigen
ANSI	American National Standards Institute	HBV	hepatitis B virus
AP1	activator protein 1	HBZ	HTLV-1 basic leucine zipper factor
AST	American Society of Transplantation	HCA	heterocyclic amine
ATLL	adult T-cell leukemia/lymphoma	HCT/Ps	human cells, tissues, and cellular and tissue-based
ATSDR	Agency for Toxic Substances and Disease Registry		products
BEI	biological exposure index	HCV	hepatitis C virus
BEN	Balkan endemic nephropathy	HHE	Health Hazard Evaluation
BOP	Bureau of Prisons	HHV	human herpesvirus
BRCA	breast cancer susceptibility proteins	HHS	Health and Human Services
b.w.	body weight	HIF-1α	hypoxia-inducible factor 1 alpha
С	cytosine	HIV	human immunodeficiency virus
cART	combined antiretroviral therapy	HIVMA	HIV Medicine Association
CAS	Chemical Abstracts Service	HpCDD	heptachlorodibenzo-p-dioxin
CAS No.	Chemical Abstracts Service Registry number	HPLC	high performance liquid chromatography
CDC	Centers for Disease Control and Prevention	HPV	human papillomavirus
CFR	Code of Federal Regulations	HRSA	Health Resources and Services Administration
CHO	Chinese hamster ovary	HTLV-1	human T-cell lymphotropic virus type 1
CI	confidence interval	HUD	Housing and Urban Development
CIN	cervical intraepithelial neoplasia	HxCDD	hexachlorodibenzo-p-dioxin
C.I.	Colour Index	IARC	International Agency for Research on Cancer
CoCrMo	cobalt-chromium-molybdenum	IDLH	immediately dangerous to life and health
COX	cyclooxygenase	IDSA	Infectious Diseases Society of America
CPSC	Consumer Product Safety Commission	IgG	immunoglobulin G
CYP	cytochrome P450	IL	interleukin
2,4-D	2,4-dichlorophenoxyacetic acid	IRIS	Integrated Risk Information System
dA-AAI	7-(deoxyadenosin-N6-yl)-aristolactam I	ISO	International Organization for Standardization
dA-AAII	7-(deoxyadenosin-N6-yl)-aristolactam II	JAK/STAT	Janus kinase/signal transducers and activators of
DDD	1,1-dichloro-2,2-bis(<i>p</i> -chlorophenyl)ethane		transcription
DDE	1,1-dichloro-2,2-bis(p-chlorophenyl)ethylene	JM	Johns Manville
DDT	dichlorodiphenyltrichloroethane	$K_{ m dis}$	dissolution rate
dec	decomposes	K_{ow}	octanol-water partition coefficient
dG	deoxyguanosine	KSHV	Kaposi sarcoma-associated herpesvirus
dG-AAI	7-(deoxyguanosin-N2-yl)-aristolactam I	LET	linear energy transfer
dG-AAII	7-(deoxyguanosin-N2-yl)-aristolactam II	LMP	latent membrane protein
DHHS	Department of Health and Human Services	LT	large T antigen
DHP	dihydropyrrolizine	MAP	mitogen-activated protein
DHS	Department of Homeland Security	MCA 38	murine colon adenocarcinoma cell line
DMDTC	dimethyldithiocarbamate	MCL	maximum contaminant level
DNA	deoxyribonucleic acid	MCPyV	Merkel cell polyomavirus
DNase	deoxyribonuclease	MCV	Merkel cell polyomavirus
DNT	dinitrotoluene	min	minute(s)
DOE	Department of Energy	MMVF	man-made (or machine-made) vitreous fibers
DoD	Department of Defense	mol wt	molecular weight
DOT	Department of Transportation	mRR	meta-relative risk
DVA	Department of Veterans Affairs	N/A	not applicable
EBNA	Epstein-Barr nuclear antigen		National Advisory Committee for Acute Exposure
EBV	Epstein-Barr virus		Guideline Levels for Hazardous Substances
ed.	edition, editor(s)	NADPH	nicotinamide adenine dinucleotide phosphate,
EPA	Environmental Protection Agency, United States		reduced form
F344	Fischer 344 (rats)	NAICS	North American Industrial Classification System
FANC	Fanconi anemia complementation group proteins	NCI	National Cancer Institute
FDA	Food and Drug Administration, United States	ND	not detected

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NextGen	Advancing the Next Generation of Risk Assessment
NF	nuclear factor
NF-κB	nuclear factor kappa-light-chain-enhancer of activated B cells
NHANES	National Health and Nutrition Examination Survey
NHL	non-Hodgkin lymphoma
NIEHS	National Institute of Environmental Health Sciences
NIH	National Institutes of Health
NIOSH	National Institute for Occupational Safety and Health
NK	natural killer
NNK	4-(<i>N</i> -nitrosomethylamino)-1-(3-pyridyl)-1-butanone
NNN	<i>N</i> -nitrosonornicotine
No.	number
NOHS	National Occupational Hazard Survey
NR	not reported
NRC	Nuclear Regulatory Commission
Nrf2	nuclear respiratory factor 2
NTP	National Toxicology Program
OCDD	octachlorodibenzo-p-dioxin
OPTN	Organ Procurement and Transplantation Network
OR	odds ratio
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbon
PCDD	polychlorinated dibenzodioxin
PCDF	polychlorinated dibenzofuran
PCP	pentachlorophenol
PCR	polymerase chain reaction
PEL	permissible exposure limit
PHS	Public Health Service
PI3	phosphoinositide 3
$pK_{_{ m b}}$	dissociation constant
PVC	polyvinyl chloride
r	correlation coefficient
r ²	coefficient of determination
R-DHP	R-dihydropyrrolizine
REL	recommended exposure limit
RfC	inhalation reference concentration
RfD	oral reference dose
RNA	ribonucleic acid
RoC	Report on Carcinogens
ROS	reactive oxygen species reportable quantity
RQ RR	
S	relative risk (risk ratio or rate ratio) second
s S&S	Schleicher & Schuell
S-DHP	S-dihydropyrrolizine
SIR	standardized incidence ratio
SMR	standardized merdelity ratio
spp.	species (plural)
ssRNA	single-stranded RNA
sT	small T antigen
STEL	short-term exposure limit
suppl.	supplement
Т	thymine
TCBQ	tetrachlorobenzoquinone
TCDD	tetrachlorodibenzo-p-dioxin
TCE	trichloroethylene
TCHQ	tetrachlorohydroquinone
TCLP	toxicity characteristic leaching procedure
TLV	threshold-limit value
TNT	trinitrotoluene
Tox21	Toxicology in the 21st Century
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TPQ threshold planning quantity TRI Toxics Release Inventory TSCA Toxic Substances Control Act tobacco-specific nitrosamine(s) **TSNA** TURA Toxics Use Reduction Act TWA time-weighted average USAI United States of America Standards Institute USDA United States Department of Agriculture UV ultraviolet ultraviolet radiation UVR VCA viral capsid antigen VOC volatile organic chemical vol. volume v/vvolume-volume ratio WC tungsten carbide World Health Organization WHO weight wt. year yr